

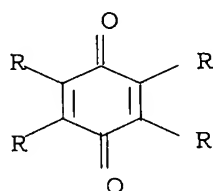
IN THE CLAIMS

Please amend the claims to read as follows:

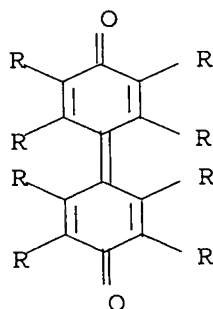
Claims 1-13. (Canceled)

Claim 14. (previously presented) A process for emulsion polymerization of one or more olefins, comprising:

i) preparing a catalyst by reacting a) a ligand of the formula Ia or Ib or a mixture of at least two of the ligands Ia or Ib with b-1) a phosphine compound  $PR'_3$ , wherein  $R'$  is hydrogen,  $C_1$ - $C_{12}$  alkyl,  $C_4$ - $C_{12}$  cycloalkyl,  $C_7$ - $C_{15}$  aralkyl or  $C_6$ - $C_{15}$  aryl group, and c) a metal compound of the formula  $M(L^2)_2$  or  $M(L^2)_2(L^1)_z$ , wherein the formulas of the ligands Ia and Ib (a) are as follows:



Ia

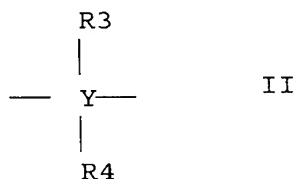


Ib

wherein each R substituent represents one or more of the following radicals:  
hydrogen, halogen, nitrile; or  $C_1$ - $C_{12}$  alkyl,  $C_1$ - $C_{12}$  alkoxy,  $C_7$ - $C_{13}$  aralkyl,  $C_6$ - $C_{14}$  aryl groups, each optionally substituted by  $C_1$ - $C_{12}$  alkyl groups, halogens,  $C_1$ - $C_{12}$  alkoxy,  $C_3$ - $C_{12}$  cycloalkyl,  $C_1$ - $C_{12}$  thioether groups, or carboxyl groups or sulfo groups, each being in its acid or salt form, or amino and/or  $C_1$ - $C_{12}$  alkyl substituted amino groups;

amino groups  $NR^1R^2$ , where  $R^1$  and  $R^2$  together or separately are hydrogen,  $C_1$ - $C_{12}$  alkyl,  $C_7$ - $C_{13}$  aralkyl or  $C_6$ - $C_{14}$  aryl groups and may additionally form a saturated or

unsaturated 5- to 10-membered ring, unsubstituted or substituted by C<sub>1</sub>-C<sub>12</sub> alkyl groups, halogens, C<sub>1</sub>-C<sub>12</sub> alkoxy, C<sub>3</sub>-C<sub>12</sub> cycloalkyl, C<sub>1</sub>-C<sub>12</sub> thioether groups, or carboxyl groups or sulfo groups, each being in its acid or salt form, or amino and/or C<sub>1</sub>-C<sub>12</sub> alkyl substituted amino groups; and wherein identical or different compounds of the formulae Ia and Ib optionally are bridged by one or more C<sub>1</sub>-C<sub>12</sub> alkylene, C<sub>2</sub>-C<sub>12</sub> alkylated azo or formula II bridging moieties, said formula II having the structure:



wherein Y is silicon or germanium and R<sup>3</sup> and R<sup>4</sup> are hydrogen and/or C<sub>1</sub>-C<sub>12</sub> alkyl; and wherein the definitions of the metals and L groups in the metal compounds are as follows:

M is a transition metal selected from the group consisting of Groups 7 to 10 of the Periodic Chart of the Elements;

L<sup>1</sup> is phosphanes (R<sup>5</sup>)<sub>x</sub>PH<sub>3-x</sub> or amines (R<sup>5</sup>)<sub>x</sub>NH<sub>3-x</sub> with identical or different radicals R<sup>5</sup>, ethers (R<sup>5</sup>)<sub>2</sub>O, H<sub>2</sub>O, alcohols (R<sup>5</sup>)OH, pyridine, pyridine derivatives of the formula C<sub>5</sub>H<sub>5-x</sub>(R<sup>5</sup>)<sub>x</sub>N, CO, C<sub>1</sub>-C<sub>12</sub> alkyl nitriles, C<sub>6</sub>-C<sub>14</sub> aryl nitriles or ethylenically unsaturated double bond systems, x being an integer from 0 to 3;

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>20</sub> alkyl groups, which may in turn be substituted by O(C<sub>1</sub>-C<sub>6</sub> alkyl) or N(C<sub>1</sub>-C<sub>6</sub> alkyl)<sub>2</sub> groups, C<sub>3</sub>-C<sub>12</sub> cycloalkyl groups, C<sub>7</sub>-C<sub>13</sub> aralkyl radicals, or C<sub>6</sub>-C<sub>14</sub> aryl groups,

L<sup>2</sup> is halide ions or R<sup>6</sup><sub>x</sub>NH<sub>3-x</sub>, where x is an integer from 0 to 3 and R<sup>6</sup> is C<sub>1</sub>-C<sub>12</sub> alkyl or C<sub>1</sub>-C<sub>6</sub> alkyl anions, allyl anions, benzyl anions or aryl anions, and optionally L<sup>1</sup> and L<sup>2</sup> being linked to one another by one or more covalent bonds; and

z is a number from 0 to 4; and

ii) immediately (co)polymerizing one or more olefins in water or a solvent mixture

with a water content of at least 50 % by volume in the presence of an emulsifier and, optionally, of an activator.

Claim 15. (previously presented) The process as claimed in claim 14, wherein one or more olefins are emulsion polymerized as a miniemulsion in water, produced with the aid of ultrasound.

Claim 16. (previously presented) The process as claimed in claim 14, wherein said activator is present in the (co)polymerization medium.

Claim 17. (previously presented) The process as claimed in claim 16, wherein said activator is an olefin complex of rhodium or nickel.

Claim 18. (previously presented) The process as claimed in claim 16, wherein said emulsifier is an ionic emulsifier.

Claim 19. (previously presented) The process as claimed in claim 14, wherein one of said olefins is ethylene.

Claim 20. (Previously Presented) The process as claimed in claim 14, wherein one olefin is ethylene and the comonomer is selected from the group consisting of propylene, 1-butene, 1-hexene and styrene.

Claim 21. (previously presented) The process as claimed in claim 14, wherein the olefin for polymerization is ethylene.

Claim 22. (previously presented) The process as claimed in claim 14, wherein said ligands Ia to Ib are combined in a ratio of 10 : 90 to 90 to 10 mole %.

Claim 23. (previously presented) The process as claimed in claim 14, wherein the metal compound is combined with the phosphine in a molar ratio ranging from 1:1000 to 1000:1.

Claim 24. (previously presented) The process as claimed in claim 14, wherein the ligand Ia or Ib is combined with the phosphine compound in a molar ratio ranging from 1:1000 to 1000:1.

Claims 25-37. (canceled)